January 2004

Nebraska Summary 482: John Deere 6715 Diesel 16-Speed

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SUMMARY OF OECD TEST 2238—NEBRASKA SUMMARY 482
JOHN DEERE 6715 DIESEL
16 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed-1042 rpm)					
107.4 *(80.1)*	2300	6.88 *(26.04)*	0.446 *(0.272)*	15.61 *(3.08)*	
Standard Power Take-off Speed (1000 rpm)					
115.5 *(86.1)*	2208	7.15 *(27.06)*	0.432 *(0.263)*	16.15 *(3.18)*	
Maximum Power (2 hours)					
119.1 *(88.8)*	2000	6.90 *(26.14)*	0.404 *(0.246)*	17.25 *(3.40)*	
VARYING POWER AND FUEL CONSUMPTION					
107.4 *(80.1)*	2300	6.88 *(26.04)*	0.446 *(0.272)*	15.61 *(3.08)*	Air temperature
93.9 *(70.0)*	2364	6.30 *(23.84)*	0.468 *(0.284)*	14.90 *(2.94)*	66°F *(19°C)*
71.5 *(53.3)*	2395	5.48 *(20.73)*	0.544 *(0.325)*	13.05 *(2.57)*	Relative humidity
48.4 *(36.1)*	2431	4.44 *(16.83)*	0.640 *(0.389)*	10.89 *(2.15)*	38%
24.4 *(18.2)*	2455	3.38 *(12.80)*	0.966 *(0.587)*	7.22 *(1.42)*	Barometer
-- --	2460	2.47 *(9.36)*	-- --	-- --	29.7" Hg *(100.5 kPa)*

Maximum Torque - 340 lb.-ft. *(461 Nm)* at 1600 rpm
Maximum Torque Rise - 38.4%
Torque rise at 1800 engine rpm - 36%

DRAWBAR PERFORMANCE
(Unballasted–Front Drive Engaged)
FUEL CONSUMPTION CHARACTERISTICS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F cool-ing	*(°C)* Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—10th (B4) Gear									
94.3 *(70.3)*	6535 *(29.06)*	5.41 *(8.71)*	2301	3.6	0.506 *(0.308)*	13.81 *(2.72)*	163 *(73)*	41 *(5)*	29.3 *(99.1)*
75% of Pull at Maximum Power—10th (B4) Gear									
73.4 *(54.7)*	4865 *(21.63)*	5.66 *(9.11)*	2384	2.6	0.566 *(0.344)*	12.35 *(2.43)*	162 *(72)*	41 *(5)*	29.3 *(99.1)*
50% of Pull at Maximum Power—10th (B4) Gear									
49.2 *(36.7)*	3195 *(14.21)*	5.77 *(9.29)*	2412	1.7	0.692 *(0.421)*	10.10 *(1.99)*	160 *(71)*	41 *(5)*	29.3 *(99.1)*
75% of Pull at Reduced Engine Speed—11th (C3) Gear									
73.8 *(55.0)*	4870 *(21.67)*	5.68 *(9.14)*	1851	2.7	0.485 *(0.295)*	14.42 *(2.84)*	160 *(71)*	41 *(5)*	29.3 *(99.1)*
50% of Pull at Reduced Engine Speed—11th (C3) Gear									
49.3 *(36.8)*	3200 *(14.25)*	5.78 *(9.30)*	1869	1.7	0.560 *(0.341)*	12.49 *(2.46)*	156 *(69)*	41 *(5)*	29.3 *(99.1)*

Location of Test: DLG Testing Center Technology and Farm inputs, Max - Eyth - Weg 1, D - 64823 Gros-Umstadt, Germany

Dates of Test: November 2004 to January 2005

Manufacturer: Deere & Company, Moline, Illinois, USA

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.837 **Fuel weight** 6.96 lbs/gal *(0.8354 kg/l)* **Oil SAE** 15W-40 **API service classification** CF-4 **Transmission and hydraulic lubricant** John Deere Hy-Gard fluid **Front axle lubricant** SAE 80W90.

ENGINE: Make John Deere Diesel **Type** six cylinder vertical with turbocharger and intercooler **Serial No.** 870911 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.19" x 5.00" *(106.5 mm x 127.0 mm)* **Compression ratio** 16.9 to 1 **Displacement** 414 cu in *(6788 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** 424136 **Tread width** rear 59.7" *(1516 mm)* to 75.4" *(1916 mm)* front 59.7" *(1516 mm)* to 79.4" *(2016 mm)* **Wheel base** 104.3" *(2650 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.22 *(1.96)* second 1.58 *(2.55)* third 2.20 *(3.54)* fourth 2.44 *(3.93)* fifth 2.80 *(4.51)* sixth 3.18 *(5.11)* seventh 4.01 *(6.46)* eighth 4.41 *(7.09)* ninth 5.22 *(8.40)* tenth 5.61 *(9.03)* eleventh 7.25 *(11.66)* twelfth 8.27 *(13.31)* thirteenth 9.23 *(14.86)* fourteenth 10.74 *(17.29)* fifteenth 14.92 *(24.01)* sixteenth 19.01 *(30.60)* reverse 1.27 *(2.05)*, 1.65 *(2.66)*, 2.29 *(3.69)*, 2.55 *(4.10)*, 2.92 *(4.70)*, 3.31 *(5.33)*, 4.19 *(6.75)*, 4.60 *(7.40)*, 5.44 *(8.76)*, 5.86 *(9.43)*, 7.56 *(12.17)*, 8.63 *(13.89)*, 9.64 *(15.51)*, 11.22 *(18.05)*, 15.57 *(25.06)*, 19.85 *(31.94)* **Clutch** multiple wet disc hydraulically operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2143 engine rpm or 1000 rpm at 2208 engine rpm. **Unladen tractor mass** 10880 lb *(4935 kg)*

DRAWBAR PERFORMANCE
(Unballasted–Front Drive Engaged)
MAXIMUM POWER IN SELECTED GEARS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				7th (C1) Gear					
97.4 *(72.6)*	11755 *(52.29)*	3.11 *(5.00)*	1995	10.8	0.494 *(0.301)*	14.15 *(2.79)*	165 *(74)*	41 *(5)*	29.2 *(98.8)*
				8th (B3) Gear					
100.0 *(74.6)*	10725 *(47.71)*	3.50 *(5.63)*	2001	8.6	0.480 *(0.292)*	14.57 *(2.87)*	167 *(75)*	41 *(5)*	29.2 *(98.9)*
				9th (C2) Gear					
102.9 *(76.7)*	8965 *(39.88)*	4.30 *(6.93)*	1996	5.8	0.470 *(0.286)*	14.87 *(2.93)*	167 *(75)*	41 *(5)*	29.2 *(98.8)*
				10th (B4) Gear					
104.3 *(77.8)*	8470 *(37.68)*	4.62 *(7.44)*	2001	5.3	0.460 *(0.280)*	15.21 *(3.00)*	167 *(75)*	41 *(5)*	29.2 *(98.9)*
				11th (C3) Gear					
103.6 *(77.3)*	6400 *(28.46)*	6.07 *(9.77)*	2002	3.5	0.465 *(0.283)*	15.02 *(2.96)*	169 *(76)*	41 *(5)*	29.2 *(98.8)*
				12th (D1) Gear					
103.4 *(77.1)*	5540 *(24.64)*	7.00 *(11.27)*	2001	2.9	0.465 *(0.283)*	15.02 *(2.96)*	169 *(76)*	41 *(5)*	29.2 *(98.8)*
				13th (C4) Gear					
103.7 *(77.3)*	4960 *(22.07)*	7.84 *(12.61)*	2009	2.9	0.469 *(0.285)*	14.92 *(2.94)*	167 *(75)*	41 *(5)*	29.2 *(98.8)*
				14th (D2) Gear					
102.3 *(76.3)*	4205 *(18.71)*	9.12 *(14.68)*	1999	2.2	0.473 *(0.288)*	14.77 *(2.91)*	165 *(74)*	41 *(5)*	29.2 *(98.8)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's 3 point lift claim of 5915 lbs *(2683 kg)*. The performance results on this summary were taken from OECD tests conducted under the Code II Test Code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2238** Nebraska Summary 482, July 21, 2005.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
W.P. Campbell
Board of Tractor Test Engineers

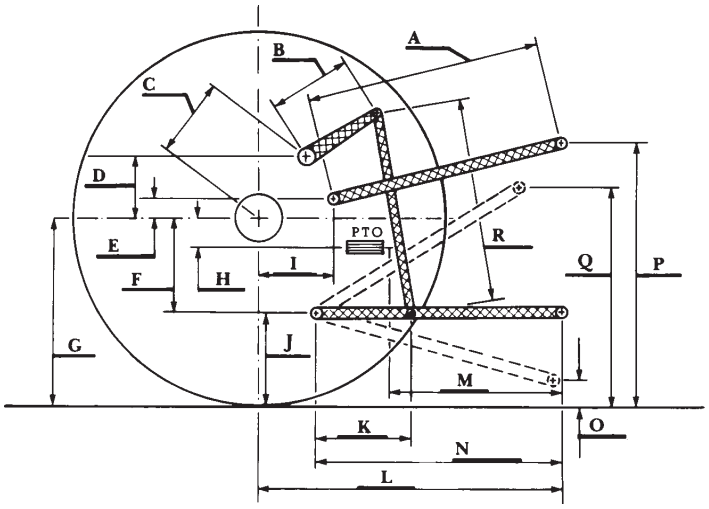
TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
At no load in 8th(B3) Gear	70.0	69.5
Maximum Sound level	71.0	70.5
Bystander	--	--

TIRES AND WEIGHT	Tested Without Ballast
Rear Tires–No., size, ply & psi *(kPa)*	Two 18.4R38; **;12 *(80)*
Front Tires–No., size, ply & psi *(kPa)*	Two 13.6R28; **;12 *(80)*
Height of Drawbar	18.7 in *(475 mm)*
Static Weight with operator– Rear	6605 lb *(2995 kg)*
– Front	4440 lb *(2015 kg)*
– Total	11045 lb *(5010 kg)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: none
Maximum Force Exerted Through Whole Range: 5430 lbs *(24.15 kN)*

i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2800 psi *(193 bar)*	
	one outlet set	**two outlet sets combined**
ii) Pump delivery rate at minimum pressure:	18.7 GPM *(70.7 l/min)*	19.5 GPM *(73.7 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	16.5 GPM *(62.5 l/min)*	16.7 GPM *(63.2 l/min)*
Delivery pressure:	2320 psi *(160 bar)*	2495 psi *(172 bar)*
Power:	22.3 HP *(16.7 kW)*	24.3 HP *(18.1 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	26.0	*660*
B	12.0	*305*
C	20.0	*508*
D	18.7	*475*
E	7.3	*185*
F	8.9	*225*
G	32.3	*820*
H	2.8	*70*
I	18.1	*460*
J	23.4	*595*
K	19.9	*505*
L	42.5	*1080*
M	21.7	*550*
N	37.2	*945*
O	7.9	*200*
P	47.4	*1205*
Q	34.6	*880*
R	32.1	*815*